

Application Serial No. 10/717,912
Attorney Docket No. 111190.121US1

REMARKS

In the Office Action, the Examiner noted that claims 1 and 3-26 were pending in the application, and that claims 1 and 3-26 were rejected.

By this Amendment, claims 1, 3, 4, 10-12, 15, 17, 21 and 24 have been amended and claim 27 has been added. Thus, claims 1 and 3-27 are pending in the application. The Examiner's rejections are traversed below.

Rejections under 35 U.S.C. §102 and §103

Claims 1-6, 8-10 and 12-26 are rejected under 35 U.S.C. §102(b) and §103 as being unpatentable over Boatright, U.S. Patent 5,471,996 combined with Stanec et al., U.S. Patent 4,236,528. Applicant respectfully traverses this rejection.

Boatright does not at all relate to the present invention where the hand is secured in a substantially fixed position as part of the measuring of the muscle strength of the human thumb in the adduction direction or both the abduction and adduction directions. For example, Boatright merely recites that the structure described therein is **limited to the abduction direction**. See, e.g., Boatright, Column 3, lines 47-57, "The present invention also provides a method of measuring abduction strength of a patient's thumb.").

While the Examiner references Figure 3, Applicant respectfully submits that this Figure does not at all show that forces can, for example, **be recorded in more than one direction and/or that the adduction direction is being measured**.

In addition, Boatright does not account for the position of the thumb in an orientation that permits the thumb to actually perform a pushing force. Boatright also does not disclose or suggest the use of an **adjustable ring or device for positioning of the thumb therein**, and the locking of the ring to record forces exerted therein by the

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thumb in the adduction and/or abduction directions. Boatright further does not provide any disclosure or suggestion for the monitoring of the force that is being exerted by thumb to determine fatigue and the timing associated with the fatigue as part of the process of measuring the muscle strength in the thumb.

Boatright further provides no disclosure or suggestion regarding an apparatus that **can affix the wrist in a stabilized position**, nor does Boatright provide any apparatus that is capable of **controlling the positioning of the fingers** and/or affixing the fingers in a stabilized position.

Stanec et al., 4,236,528, describes an arm board for hand and forearm fixation for the attachment of electrodes for stimulating the ulnar nerve. The palm of the person being tested rests on the arm board and is fixed in position by a lock assuring immobility of the palm and fingers and leaving free only movement of the thumb, which is positioned in a thumb ring. The wrist is immobilized by a belt with a Velcro lock leaving free the exposed part of the palmar side of the forearm at the wrist for ulnar nerve stimulation. The proximal part of the forearm rests on a foam arm protector and is immobilized by a belt with a Velcro lock. A force-transducer positioner is attached to the arm board. A miniature force transducer is attached to the transducer positioner and to the thumb ring which provides for man-machine connection. The thumb ring immobilizes the thumb in position by a Velcro strap. The output signal from the force transducer is proportional to the force of thumb adduction produced by increased isometric tension in the adductor pollicis muscle evoked by stimulation of the ulnar nerve at the wrist.

The Examiner states on page 7 that this patent shows both adduction and abduction, but Stanec clearly is limited to adduction only. In addition, there is no reason to combine the Boatright patent, 5,471,996 with Stanec for both adduction and abduction. In addition, Stanec requires that the arm be positioned with the palm flat on a horizontal surface. Further, in Stanec, the thumb is positioned perpendicular to the

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hand, where a thumb holding means has an opening alignable generally perpendicular to the engaged hand for receiving and holding the thumb.

Accordingly, Applicant respectfully submits that the presently claimed invention patently distinguishes over Boatright.

In addition, the present invention provides benefits which are not able to be provided by the prior art alone or in combination. Specifically, the inventor of the present application has utilized the present invention in a substantial number of trials and has published the following research information showing patterns of muscle strength in the thumb over a variety of variables that heretofore has never been able to have been compiled, a copy of which is attached hereto. Accordingly, for these reasons as well, Applicant respectfully submits that the presently claimed invention in each of claims 1 and 3-26 are patentable over the prior art.

Further, Applicant also submits that the Examiner has not provided any motivation to have provided a combination of prior art references as proposed by the Examiner.

Accordingly, Applicant respectfully submits that claims 1 and 3-26 are patentable over the prior art asserted by the Examiner. Withdrawal of this rejection is respectfully requested.

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CONCLUSION

Applicant respectfully submits that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicant does not concede that the cited prior art shows any of the elements recited in the claims. However, Applicant has provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicant strongly emphasizes that one reviewing the prosecution history should not interpret any of the examples Applicant has described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, Applicant asserts that it is the combination of elements recited in each of the claims, when each claim is interpreted as a whole, which is patentable. Applicant has emphasized certain features in the claims as clearly not present in the cited references, as discussed above. However, Applicant does not concede that other features in the claims are found in the prior art. Rather, for the sake of simplicity, Applicant is providing examples of why the claims described above are distinguishable over the cited prior art.

Applicant wishes to clarify for the record, if necessary, that the claims have been amended to expedite prosecution and/or explicitly recite that which is already present within the claims. Moreover, Applicant reserves the right to pursue the original and/or complimentary subject matter recited in the present claims in a continuation application.

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Any narrowing amendments made to the claims in the present Amendment are not to be construed as a surrender of any subject matter between the original claims and the present claims; rather merely Applicant's best attempt at providing one or more definitions of what the Applicant believes to be suitable patent protection. In addition, the present claims provide the intended scope of protection that Applicant is seeking for this application. Therefore, no estoppel should be presumed, and Applicant's claims are intended to include a scope of protection under the Doctrine of Equivalents.

Further, Applicant hereby retracts any arguments and/or statements made during prosecution that were rejected by the Examiner during prosecution and/or that were unnecessary to obtain allowance, and only maintains the arguments that persuaded the Examiner with respect to the allowability of the patent claims, as one of ordinary skill would understand from a review of the prosecution history. That is, Applicant specifically retracts statements that one of ordinary skill would recognize from reading the file history were not necessary, not used and/or were rejected by the Examiner in allowing the patent application.

For all the reasons advanced above, Applicant respectfully submits that the rejections have been overcome and should be withdrawn.

For all the reasons advanced above, Applicant respectfully submits that the Application is in condition for allowance, and that such action is earnestly solicited.

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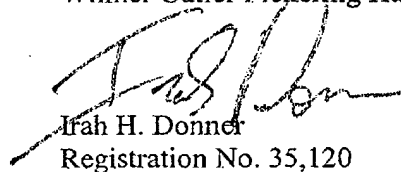
AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees, which may be required for this Amendment, or credit any overpayment to Deposit Account No. 08-0219

In the event that an Extension of Time is required, or which may be required in addition to that requested in a petition for an Extension of Time, the Commissioner is requested to grant a petition for that Extension of Time which is required to make this response timely and is hereby authorized to charge any fee for such an Extension of Time or credit any overpayment for an Extension of Time to Deposit Account No. 08-0219.

Respectfully submitted,

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